CRF Errors Corrected by the STIC Systems Branch

Serial Number: _09/529,239.C_   **ENTERED**   CRF Processing Date: _11/18/2002_
Edited by: _____
Verified by: _____/A/_____ (STIC staff)

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:
_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included:
_____   **RECEIVED**

NOV 2 5 2002

☐ Deleted extra, invalid, headings used by an applicant, specifically:
_____   **TECH CENTER 1600/2900**

☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as_____ .

☑ Inserted mandatory headings, specifically: _<220> in Seqs. 12,15,19,26,27,31_

☐ Corrected an obvious error in the response, specifically:
_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:
_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other:
_____
_____
_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.   3/1/95

1600

RAW SEQUENCE LISTING   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C TIME: 09:49:57

Input Set : **N:\Crf4\11182002\I529239B.raw**
Output Set: **N:\CRF4\11222002\I529239C.raw**

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     2        Betzner, Andreas
     3        Freyssinet, Georges
     4        Perez, Pascal
     5 <120> TITLE OF INVENTION: METHOD FOR OBTAINING PLANT VARIETIES
     6 <130> FILE REFERENCE: A33153-PCT-USA 072667.0128
C--> 7 <140> CURRENT APPLICATION NUMBER: US/09/529,239C
     8 <141> CURRENT FILING DATE: 2000-10-27
     9 <150> PRIOR APPLICATION NUMBER: PCT/EP98/06977
    10 <151> PRIOR FILING DATE: 1998-10-09
    11 <160> NUMBER OF SEQ ID NOS: 103
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    20 <223> OTHER INFORMATION: I
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    30 <223> OTHER INFORMATION: Degenerate oligonucleotides UPMU used to isolate AtMSH3 and
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    31 <300> PUBLICATION INFORMATION:
    32 <301> AUTHORs: Reenan and Kolodner
    33 <302> TITLE: Genetics
    34 <303> JOURNAL: 132
    35 <306> PAGES: 963-973
    36 <307> DATE: 1992
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RAW SEQUENCE LISTING   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:57

Input Set : N:\Crf4\11182002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

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        55 <301> AUTHORs: Reenan and Kolodner
        56 <302> TITLE: Genetics
        57 <303> JOURNAL: 132
        58 <306> PAGES: 963-973
        59 <307> DATE: 1992
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thaliana

RAW SEQUENCE LISTING   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C TIME: 09:49:57

Input Set : N:\Crf4\11182002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

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109        ecotype Columbia
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115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial sequence
117 <220> FEATURE:
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119        ecotype Columbia
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161     tccccgactc acgaaccgaa tccggtagcc gaatcatcaa caccgccacc gaagatatcc     120
162     gccactgtat ccttctctcc ttccaagcgt aagcttctct ccgaccacct cgccgccgcg     180
163     tcacccaaaa agcctaaact ttctcctcac actcaaaacc cagtacccga tcccaattta     240
164     caccaaagat ttctccagag atttctggaa ccctcgccgg aggaatatgt tcccgaaacg     300
165     tcatcatcga ggaaatacac accattggaa cagcaagtgg tggagctaaa gagcaagtac     360
166     ccagatgtgg ttttgatggt ggaagttggt tacaggtaca gattcttcgg agaagacgcg     420
167     gagatcgcag cacgcgtgtt gggtatttac gctcatatgg atcacaattt catgacggcg     480
168     agtgtgccaa catttcgatt gaatttccat gtgagaagac tggtgaatgc aggatacaag     540
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170     ggcccttttt tccggggact gtcggcgttg tataccaaag ccacgcttga agcggctgag     660
171     gatataagtg gtggttgtgg tggtgaagaa ggttttggtt cacagagtaa tttcttggtt     720
172     tgtgttgtgg atgagagagt taagtcggag acattaggct gtggtattga aatgagtttt     780
173     gatgttagag tcggtgttgt tggcgttgaa atttcgacag gtgaagttgt ttatgaagag     840
174     ttcaatgata atttcatgag aagtggatta gaggctgtga ttttgagctt gtcaccagct     900
175     gagctgttgc ttggccagcc tctttcacaa caaactgaga agtttttggt ggcacatgct     960
176     ggacctacct caaacgttcg agtggaacgt gcctcactgg attgtttcag caatggtaat    1020
177     gcagtagatg aggttatttc attatgtgaa aaaatcagcg caggtaactt agaagatgat    1080
178     aaagaaatga agctggaggc tgctgaaaaa ggaatgtctt gcttgacagt tcatacaatt    1140
179     atgaacatgc cacatctgac tgttcaagcc ctcgccctaa cgttttgcca tctcaaacag    1200
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187 <223> OTHER INFORMATION: MSH3 specific primer 2S5 for PCR using cDNA of Arabidopsis
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188     ecotype Columbia
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199 <400> SEQUENCE: 14
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205 <213> ORGANISM: Arabidopsis thaliana ecotype Columbia
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207 <223> OTHER INFORMATION: Clone 13
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211      tctctcagcc aatactctgc aacagttgga ggttgtgaaa aataattcag atggatcgga   180
212      atctggctcc ttattccata atatgaatca cacacttaca gtatatggtt ccaggcttct   240
213      tagacactgg gtgactcatc ctctatgcga tagaaatttg atatctgctc ggcttgatgc   300
214      tgtttctgag atttctgctt gcatgggatc tcatagttct tcccagctca gcagtgagtt   360
215      ggttgaagaa ggttctgaga gagcaattgt atcacctgag ttttatctcg tgctctcctc   420
216      agtcttgaca gctatgtcta gatcatctga tattcaacgt ggaataacaa gaatctttca   480
217      tcggactgct aaagccacag agttcattgc agttatggaa gctattttac ttgcggggaa   540
218      gcaaattcag cggcttggca taaagcaaga ctctgaaatg aggagtatgc aatctgcaac   600
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224      ttccaaggtc cctatgaatt gggtgaaagt aaatagcacc aagaagacta ttcgatatca   960
225      tcccccagaa atagtagctg gcttggatga gctagctcta gcaactgaac atcttgccat  1020
226      tgtgaaccga gcttcgtggg atagtttcct caagagtttc agtagatact acacagattt  1080
227      taaggctgcc gttcaagctc ttgctgcact ggactgtttg cactcccttt caactctatc  1140
228      tagaaacaag aactatgtcc gtcccgagtt tgtggatgac tgtgaaccag ttgagataaa  1200
229      catacagtct ggtcgtcatc ctgtactgga gactatatta caagataact cgtcccaaa  1260
230      tgacacaatt ttgcatgcag aagggaata ttgccaaatt atcaccggac ctaacatggg  1320
231      aggaaagagc tgctatatcc gtcaagttgc tttaatttcc ataatggctc aggttggttc  1380
232      ctttgtacca gcgtcattcg ccaagctgca cgtgcttgat ggtgttttca ctcggatggg  1440
233      tgcttcagac agtatccagc atggcagaag tacctttcta gaagaattaa gtgaagcgtc  1500
234      acacataatc agaacctgtt cttctcgttc gcttgttata ttagatgagc ttggaagagg  1560
235      cactagcaca cacgacggtg tagccattgc ctatgcaaca ttacagcatc tcctagcaga  1620
236      aaagagatgt ttggttcttt ttgtcacgca ttaccctgaa atagctgaga tcagtaacgg  1680
237      attcccaggt tctgttggga cataccatgt ctcgtatctg acattgcaga aggataaagg  1740
238      cagttatgat catgatgatg tgacctacct atataagctt gtgcgtggtc tttgcagcag  1800
239      gagctttggt tttaaggttg ctcagcttgc ccagatacct ccatcatgta tacgtcgagc  1860
240      catttcaatg gctgcaaaat tggaagctga ggtacgtgca agagagagaa atacacgcat  1920
241      gggagaacca gaaggacatg aagaaccgag aggcgcagaa gaatctattt cggctctagg  1980
242      tgacttgttt gcagacctga aatttgctct ctctgaagag gacccttgga aagcattcga  2040
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244      ttgacccggg        2110
246 <210> SEQ ID NO: 16
247 <211> LENGTH: 29
248 <212> TYPE: DNA
249 <213> ORGANISM: Artificial sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: MSH3 specific primer S51 for PCR using cDNA of Arabidopsis
thaliana
252      ecotype Columbia
253 <400> SEQUENCE: 16
254      ggatcgggta ctgggttttg agtgtgagg        29
256 <210> SEQ ID NO: 17
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:58

Input Set : N:\Crf4\11182002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 11,14,17
Seq#:2; N Pos. 15,18

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 30
Seq#:2; Line(s) 53
Seq#:3; Line(s) 68
Seq#:4; Line(s) 78
Seq#:5; Line(s) 88
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Seq#:7; Line(s) 108
Seq#:8; Line(s) 118
Seq#:9; Line(s) 128
Seq#:10; Line(s) 138
Seq#:11; Line(s) 148
Seq#:12; Line(s) 176,177,178,179
Seq#:13; Line(s) 187
Seq#:14; Line(s) 197
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Seq#:16; Line(s) 251
Seq#:17; Line(s) 261
Seq#:18; Line(s) 273,482,483
Seq#:20; Line(s) 635
Seq#:21; Line(s) 645
Seq#:22; Line(s) 654
Seq#:23; Line(s) 664
Seq#:24; Line(s) 674
Seq#:25; Line(s) 684
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Seq#:26; Line(s) 726,727,728,729,730,731,732
Seq#:27; Line(s) 757,758,759,760,761,762,763
Seq#:28; Line(s) 771
Seq#:29; Line(s) 781
Seq#:30; Line(s) 793,1008,1009
Seq#:32; Line(s) 1165
Seq#:33; Line(s) 1174
Seq#:34; Line(s) 1183
Seq#:35; Line(s) 1193
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Seq#:37; Line(s) 1213

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:58

Input Set : **N:\Crf4\11182002\I529239B.raw**
Output Set: **N:\CRF4\11222002\I529239C.raw**

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Seq#:86; Line(s) 1715

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:58

Input Set : N:\Crf4\11182002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

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VERIFICATION SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:58

Input Set : N:\Crf4\11182002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

L:7 M:270 C: Current Application Number differs, Wrong Format
L:38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0

1600

RAW SEQUENCE LISTING   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C TIME: 09:49:19

Input Set : N:\Crf4\11122002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

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   1 <110> APPLICANT: Doutriaux, Marie-Pascale
   2         Betzner, Andreas
   3         Freyssinet, Georges
   4         Perez, Pascal
   5 <120> TITLE OF INVENTION: METHOD FOR OBTAINING PLANT VARIETIES
   6 <130> FILE REFERENCE: A33153-PCT-USA 072667.0128
C--> 7 <140> CURRENT APPLICATION NUMBER: US/09/529,239C
   8 <141> CURRENT FILING DATE: 2000-10-27
   9 <150> PRIOR APPLICATION NUMBER: PCT/EP98/06977
  10 <151> PRIOR FILING DATE: 1998-10-09
  11 <160> NUMBER OF SEQ ID NOS: 103
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*Does Not Comply
Corrected Diskette Needed*

ERRORED SEQUENCES

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  153 <210> SEQ ID NO: 12
  154 <211> LENGTH: 1250
  155 <212> TYPE: DNA
  156 <213> ORGANISM: Arabidopsis thaliana ecotype Columbia
  157 <223> OTHER INFORMATION: Clone 52
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  176       gcagtagatg aggttatttc attatgtgaa aaaatcagcg caggtaactt agaagatgat    1080
  177       aaagaaatga agctggaggc tgctgaaaaa ggaatgtctt gcttgacagt tcatacaatt    1140
  178       atgaacatgc cacatctgac tgttcaagcc ctcgccctaa cgttttgcca tctcaaacag    1200
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217     tgtgcgatct actcttttga gaaaattgat ttctgttatt tcatcccctg ttgtggttga   660
218     caatgccgga aaacttctct ctgccctaaa taaggaagcg gctgttcgag gtgacttgct   720
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494			35					40					45			
495	Lys	Leu	Leu	Ser	Asp	His	Leu	Ala	Ala	Ala	Ser	Pro	Lys	Lys	Pro	Lys
496		50				55					60					
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498	65				70					75						80
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510					165					170					175	
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514			195					200					205			
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516			210					215					220			
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519	Val	Asp	Glu	Arg	Val	Lys	Ser	Glu	Thr	Leu	Gly	Cys	Gly	Ile	Glu	Met
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521	Ser	Phe	Asp	Val	Arg	Val	Gly	Val	Val	Gly	Val	Glu	Ile	Ser	Thr	Gly
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524			275					280					285			
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534			355					360					365			
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547        Val Thr His Pro Leu Cys Asp Arg Asn Leu Ile Ser Ala Arg Leu Asp
548        465                   470                   475                   480
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550                       485                   490                   495
551        Leu Ser Ser Glu Leu Val Glu Glu Gly Ser Glu Arg Ala Ile Val Ser
552                   500                   505                   510
553        Pro Glu Phe Tyr Leu Val Leu Ser Ser Val Leu Thr Ala Met Ser Arg
554                   515                   520                   525
555        Ser Ser Asp Ile Gln Arg Gly Ile Thr Arg Ile Phe His Arg Thr Ala
556                   530                   535                   540
557        Lys Ala Thr Glu Phe Ile Ala Val Met Glu Ala Ile Leu Leu Ala Gly
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563        Val Ile Ser Ser Pro Val Val Val Asp Asn Ala Gly Lys.Leu Leu Ser
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567        Ile Thr Ser Ser Asp Gln Phe Pro Glu Leu Ala Glu Ala Arg Gln Ala
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570                   645                   650                   655
571        Lys Lys Leu Ala Ile Arg Asn Leu Glu Phe Leu Gln Val Ser Gly Ile
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573        Thr His Leu Ile Glu Leu Pro Val Asp Ser Lys Val Pro His Asn Trp
574                   675                   680                   685
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576        690                   695                   700
577        Ile Val Ala Gly Leu Asp Glu Leu Ala Leu Ala Thr Glu His Leu Ala
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585        Pro Glu Phe Val Asp Asp Cys Glu Pro Val Glu Ile Asn Ile Gln Ser
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593        Ile Ser Ile Met Ala Gln Val Gly Ser Phe Val Pro Ala Ser Phe Ala
594                    835                 840                 845
595        Lys Leu His Val Leu Asp Gly Val Phe Thr Arg Met Gly Ala Ser Asp
596            850                 855                 860
597        Ser Ile Gln His Gly Arg Ser Thr Phe Leu Glu Glu Leu Ser Glu Ala
598        865                 870                 875                 880
599        Ser His Ile Ile Arg Thr Cys Ser Ser Arg Ser Leu Val Ile Leu Asp
600                        885                 890                 895
601        Glu Leu Gly Arg Gly Thr Ser Thr His Asp Gly Val Ala Ile Ala Tyr
602                    900                 905                 910
603        Ala Thr Leu Gln His Leu Leu Ala Glu Lys Arg Cys Leu Val Leu Phe
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605        Val Thr His Tyr Pro Glu Ile Ala Glu Ile Ser Asn Gly Phe Pro Gly
606            930                 935                 940
607        Ser Val Gly Thr Tyr His Val Ser Tyr Leu Thr Leu Gln Lys Asp Lys
608        945                 950                 955                 960
609        Gly Ser Tyr Asp His Asp Asp Val Thr Tyr Leu Tyr Lys Leu Val Arg
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611        Gly Leu Cys Ser Arg Ser Phe Gly Phe Lys Val Ala Gln Leu Ala Gln
612                    980                 985                 990
613        Ile Pro Pro Ser Cys Ile Arg Arg Ala Ile Ser Met Ala Ala Lys Leu
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615        Glu Ala Glu Val Arg Ala Arg Glu Arg Asn Thr Arg Met Gly Glu Pro
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3 same

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1027       Met Lys Ala Asn Asp Val Ile Pro Gln Phe Arg Ser Asn Asn Gly Lys
1028               130                 135                 140
1029       Thr Gln Glu Arg Asn His Ala Phe Ser Phe Ser Gly Arg Ala Glu Leu
1030       145                 150                 155                 160
1031       Arg Ser Val Glu Asp Ile Gly Val Asp Gly Asp Val Pro Gly Pro Glu
1032                   165                 170                 175
1033       Thr Pro Gly Met Arg Pro Arg Ala Ser Arg Leu Lys Arg Val Leu Glu
1034               180                 185                 190
1035       Asp Glu Met Thr Phe Lys Glu Asp Lys Val Pro Val Leu Asp Ser Asn
1036               195                 200                 205
1037       Lys Arg Leu Lys Met Leu Gln Asp Pro Val Cys Gly Glu Lys Lys Glu
1038           210                 215                 220
1039       Val Asn Glu Gly Thr Lys Phe Glu Trp Leu Glu Ser Ser Arg Ile Arg
1040       225                 230                 235                 240
1041       Asp Ala Asn Arg Arg Arg Pro Asp Asp Pro Leu Tyr Asp Arg Lys Thr
1042               245                 250                 255
```

```
1043    Leu His Ile Pro Pro Asp Val Phe Lys Lys Met Ser Ala Ser Gln Lys
1044                260                 265                 270
1045    Gln Tyr Trp Ser Val Lys Ser Glu Tyr Met Asp Ile Val Leu Phe Phe
1046            275                 280                 285
1047    Lys Val Gly Lys Phe Tyr Glu Leu Tyr Glu Leu Asp Ala Glu Leu Gly
1048        290                 295                 300
1049    His Lys Glu Leu Asp Trp Lys Met Thr Met Ser Gly Val Gly Lys Cys
1050    305                 310                 315                 320
1051    Arg Gln Val Gly Ile Ser Glu Ser Gly Ile Asp Glu Ala Val Gln Lys
1052                325                 330                 335
1053    Leu Leu Ala Arg Gly Tyr Lys Val Gly Arg Ile Glu Gln Leu Glu Thr
1054                340                 345                 350
1055    Ser Asp Gln Ala Lys Ala Arg Gly Ala Asn Thr Ile Ile Pro Arg Lys
1056                355                 360                 365
1057    Leu Val Gln Val Leu Thr Pro Ser Thr Ala Ser Glu Gly Asn Ile Gly
1058        370                 375                 380
1059    Pro Asp Ala Val His Leu Leu Ala Ile Lys Glu Ile Lys Met Glu Leu
1060    385                 390                 395                 400
1061    Gln Lys Cys Ser Thr Val Tyr Gly Phe Ala Phe Val Asp Cys Ala Ala
1062                405                 410                 415
1063    Leu Arg Phe Trp Val Gly Ser Ile Ser Asp Asp Ala Ser Cys Ala Ala
1064                420                 425                 430
1065    Leu Gly Ala Leu Leu Met Gln Val Ser Pro Lys Glu Val Leu Tyr Asp
1066            435                 440                 445
1067    Ser Lys Gly Leu Ser Arg Glu Ala Gln Lys Ala Leu Arg Lys Tyr Thr
1068        450                 455                 460
1069    Leu Thr Gly Ser Thr Ala Val Gln Leu Ala Pro Val Pro Gln Val Met
1070    465                 470                 475                 480
1071    Gly Asp Thr Asp Ala Ala Gly Val Arg Asn Ile Ile Glu Ser Asn Gly
1072                485                 490                 495
1073    Tyr Phe Lys Gly Ser Ser Glu Ser Trp Asn Cys Ala Val Asp Gly Leu
1074            500                 505                 510
1075    Asn Glu Cys Asp Val Ala Leu Ser Ala Leu Gly Glu Leu Ile Asn His
1076            515                 520                 525
1077    Leu Ser Arg Leu Lys Leu Glu Asp Val Leu Lys His Gly Asp Ile Phe
1078        530                 535                 540
1079    Pro Tyr Gln Val Tyr Arg Gly Cys Leu Arg Ile Asp Gly Gln Thr Met
1080    545                 550                 555                 560
1081    Val Asn Leu Glu Ile Phe Asn Asn Ser Cys Asp Gly Gly Pro Ser Gly
1082                565                 570                 575
1083    Thr Leu Tyr Lys Tyr Leu Asp Asn Cys Val Ser Pro Thr Gly Lys Arg
1084            580                 585                 590
1085    Leu Leu Arg Asn Trp Ile Cys His Pro Leu Lys Asp Val Glu Ser Ile
1086            595                 600                 605
1087    Asn Lys Arg Leu Asp Val Val Glu Glu Phe Thr Ala Asn Ser Glu Ser
1088        610                 615                 620
1089    Met Gln Ile Thr Gly Gln Tyr Leu His Lys Leu Pro Asp Leu Glu Arg
1090    625                 630                 635                 640
1091    Leu Leu Gly Arg Ile Lys Ser Ser Val Arg Ser Ser Ala Ser Val Leu
```

```
1092                    645              650              655
1093     Pro Ala Leu Leu Gly Lys Lys Val Leu Lys Gln Arg Val Lys Ala Phe
1094             660              665              670
1095     Gly Gln Ile Val Lys Gly Phe Arg Ser Gly Ile Asp Leu Leu Leu Ala
1096         675              680              685
1097     Leu Gln Lys Glu Ser Asn Met Met Ser Leu Leu Tyr Lys Leu Cys Lys
1098         690              695              700
1099     Leu Pro Ile Leu Val Gly Lys Ser Gly Leu Glu Leu Phe Leu Ser Gln
1100     705              710              715              720
1101     Phe Glu Ala Ala Ile Asp Ser Asp Phe Pro Asn Tyr Gln Asn Gln Asp
1102             725              730              735
1103     Val Thr Asp Glu Asn Ala Glu Thr Leu Thr Ile Leu Ile Glu Leu Phe
1104             740              745              750
1105     Ile Glu Arg Ala Thr Gln Trp Ser Glu Val Ile His Thr Ile Ser Cys
1106             755              760              765
1107     Leu Asp Val Leu Arg Ser Phe Ala Ile Ala Ala Ser Leu Ser Ala Gly
1108         770              775              780
1109     Ser Met Ala Arg Pro Val Ile Phe Pro Glu Ser Glu Ala Thr Asp Gln
1110     785              790              795              800
1111     Asn Gln Lys Thr Lys Gly Pro Ile Leu Lys Ile Gln Gly Leu Trp His
1112             805              810              815
1113     Pro Phe Ala Val Ala Ala Asp Gly Gln Leu Pro Val Pro Asn Asp Ile
1114             820              825              830
1115     Leu Leu Gly Glu Ala Arg Arg Ser Ser Gly Ser Ile His Pro Arg Ser
1116         835              840              845
1117     Leu Leu Leu Thr Gly Pro Asn Met Gly Gly Lys Ser Thr Leu Leu Arg
1118         850              855              860
1119     Ala Thr Cys Leu Ala Val Ile Phe Ala Gln Leu Gly Cys Tyr Val Pro
1120     865              870              875              880
1121     Cys Glu Ser Cys Glu Ile Ser Leu Val Asp Thr Ile Phe Thr Arg Leu
1122             885              890              895
1123     Gly Ala Ser Asp Arg Ile Met Thr Gly Glu Ser Thr Phe Leu Val Glu
1124             900              905              910
1125     Cys Thr Glu Thr Ala Ser Val Leu Gln Asn Ala Thr Gln Asp Ser Leu
1126         915              920              925
1127     Val Ile Leu Asp Glu Leu Gly Arg Gly Thr Ser Thr Phe Asp Gly Tyr
1128         930              935              940
1129     Ala Ile Ala Tyr Ser Val Phe Arg His Leu Val Glu Lys Val Gln Cys
1130     945              950              955              960
1131     Arg Met Leu Phe Ala Thr His Tyr His Pro Leu Thr Lys Glu Phe Ala
1132             965              970              975
1133     Ser His Pro Arg Val Thr Ser Lys His Met Ala Cys Ala Phe Lys Ser
1134             980              985              990
1135     Arg Ser Asp Tyr Gln Pro Arg Gly Cys Asp Gln Asp Leu Val Phe Leu
1136         995              1000             1005
1137     Tyr Arg Leu Thr Glu Gly Ala Cys Pro Glu Ser Tyr Gly Leu Gln Val
1138         1010             1015             1020
1139     Ala Leu Met Ala Gly Ile Pro Asn Gln Val Val Glu Thr Ala Ser Gly
1140     1025             1030             1035             1040
```

RAW SEQUENCE LISTING   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:19

Input Set : N:\Crf4\11122002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

```
1141    Ala Ala Gln Ala Met Lys Arg Ser Ile Gly Glu Asn Phe Lys Ser Ser
1142                1045                1050                1055
1143    Glu Leu Arg Ser Glu Phe Ser Ser Leu His Glu Asp Trp Leu Lys Ser
1144            1060                1065                1070
1145    Leu Val Gly Ile Ser Arg Val Ala His Asn Asn Ala Pro Ile Gly Glu
1146        1075                1080                1085
1147    Asp Asp Tyr Asp Thr Leu Phe Cys Leu Trp His Glu Ile Lys Ser Ser
1148      1090                1095                1100
1149    Tyr Cys Val Pro Lys
1150    1105
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:20

Input Set : N:\Crf4\11122002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

<u>Invalid Line Length:</u>
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 30
Seq#:2; Line(s) 53
Seq#:3; Line(s) 68
Seq#:4; Line(s) 78
Seq#:5; Line(s) 88
Seq#:6; Line(s) 98
Seq#:7; Line(s) 108
Seq#:8; Line(s) 118
Seq#:9; Line(s) 128
Seq#:10; Line(s) 138
Seq#:11; Line(s) 148
Seq#:12; Line(s) 175,176,177,178
Seq#:13; Line(s) 186
Seq#:14; Line(s) 196
Seq#:15; Line(s) 223,224,225,226,227,228,229,230,231,232,233,234,235,236
Seq#:15; Line(s) 237,238,239,240,241
Seq#:16; Line(s) 249
Seq#:17; Line(s) 259
Seq#:18; Line(s) 271,479,480
Seq#:20; Line(s) 631
Seq#:21; Line(s) 641
Seq#:22; Line(s) 650
Seq#:23; Line(s) 660
Seq#:24; Line(s) 670
Seq#:25; Line(s) 680
Seq#:26; Line(s) 707,708,709,710,711,712,713,714,715,716,717,718,719,720
Seq#:26; Line(s) 721,722,723,724,725,726,727
Seq#:27; Line(s) 751,752,753,754,755,756,757
Seq#:28; Line(s) 765
Seq#:29; Line(s) 775
Seq#:30; Line(s) 787,1001,1002
Seq#:32; Line(s) 1157
Seq#:33; Line(s) 1166
Seq#:34; Line(s) 1175
Seq#:35; Line(s) 1185
Seq#:36; Line(s) 1195
Seq#:37; Line(s) 1205
Seq#:38; Line(s) 1215
Seq#:39; Line(s) 1225
Seq#:40; Line(s) 1235
Seq#:41; Line(s) 1245
Seq#:42; Line(s) 1255
Seq#:43; Line(s) 1265

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:20

Input Set : N:\Crf4\11122002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

```
Seq#:44; Line(s) 1275
Seq#:45; Line(s) 1285
Seq#:46; Line(s) 1295
Seq#:47; Line(s) 1305
Seq#:48; Line(s) 1315
Seq#:49; Line(s) 1325
Seq#:50; Line(s) 1335
Seq#:51; Line(s) 1345
Seq#:52; Line(s) 1355
Seq#:53; Line(s) 1365
Seq#:54; Line(s) 1375
Seq#:55; Line(s) 1385
Seq#:56; Line(s) 1395
Seq#:57; Line(s) 1405
Seq#:58; Line(s) 1415
Seq#:59; Line(s) 1425
Seq#:60; Line(s) 1435
Seq#:61; Line(s) 1445
Seq#:62; Line(s) 1455
Seq#:63; Line(s) 1465
Seq#:64; Line(s) 1475
Seq#:65; Line(s) 1485
Seq#:66; Line(s) 1495
Seq#:67; Line(s) 1505
Seq#:68; Line(s) 1515
Seq#:69; Line(s) 1525
Seq#:70; Line(s) 1535
Seq#:71; Line(s) 1545
Seq#:72; Line(s) 1555
Seq#:73; Line(s) 1565
Seq#:74; Line(s) 1575
Seq#:75; Line(s) 1585
Seq#:76; Line(s) 1595
Seq#:77; Line(s) 1605
Seq#:78; Line(s) 1615
Seq#:79; Line(s) 1625
Seq#:80; Line(s) 1635
Seq#:81; Line(s) 1645
Seq#:82; Line(s) 1655
Seq#:83; Line(s) 1665
Seq#:84; Line(s) 1675
Seq#:85; Line(s) 1685
Seq#:86; Line(s) 1695
Seq#:87; Line(s) 1705
Seq#:88; Line(s) 1715
Seq#:89; Line(s) 1725
Seq#:90; Line(s) 1735
Seq#:91; Line(s) 1745
Seq#:92; Line(s) 1755
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:20

        Input Set : N:\Crf4\11122002\I529239B.raw
        Output Set: N:\CRF4\11222002\I529239C.raw

Seq#:93; Line(s) 1765
Seq#:94; Line(s) 1775
Seq#:95; Line(s) 1785
Seq#:96; Line(s) 1795
Seq#:97; Line(s) 1805
Seq#:98; Line(s) 1833,1834,1835,1836,1837,1838,1839,1840,1841,1842,1843
Seq#:98; Line(s) 1844,1845,1846,1847,1848,1849,1850,1851,1852,1853,1854
Seq#:98; Line(s) 1855,1856,1857,1858,1859,1860,1861,1862,1863,1864,1865
Seq#:98; Line(s) 1866,1867,1868,1869,1870,1871,1872,1873,1874,1875,1876
Seq#:98; Line(s) 1877,1878,1879,1880,1881,1882,1883,1884,1885,1886,1887
Seq#:98; Line(s) 1888,1889,1890,1891,1892,1893,1894,1895,1896,1897,1898
Seq#:98; Line(s) 1899,1900,1901,1902,1903,1904,1905,1906,1907,1908,1909
Seq#:98; Line(s) 1910,1911,1912,1913,1914,1915,1916,1917,1918,1919,1920
Seq#:98; Line(s) 1921,1922,1923,1924,1925,1926,1927,1928,1929,1930,1931
Seq#:98; Line(s) 1932,1933,1934,1935,1936,1937,1938,1939,1940,1941,1942
Seq#:98; Line(s) 1943,1944,1945,1946,1947,1948,1949,1950

VERIFICATION SUMMARY   DATE: 11/22/2002
PATENT APPLICATION: US/09/529,239C   TIME: 09:49:20

Input Set : N:\Crf4\11122002\I529239B.raw
Output Set: N:\CRF4\11222002\I529239C.raw

L:7 M:270 C: Current Application Number differs, Wrong Format
L:38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:158 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:12
L:206 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:15
L:488 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:19
L:690 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:26
L:734 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:27
L:1010 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:31